

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifiers

Product name: Dimethylsulfoxide (DMSO) for cell culture, Endotoxin tested

Product number: P60-36750100

Brand: PAN Biotech

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Laboratory chemicals, Manufacture of substances

1.3. Details of the supplier of the safety data sheet

Company: PAN Biotech GmbH
Am Gewerbepark 6
94501 Aidenbach
GERMANY

Telephone: +49-(0)8543-6016-30

Fax: +49-(0)8543-6016-49

E-mail: info@pan-biotech.de

1.4. Emergency telephone number

Emergency phone: +49-(0)8543-6016-30 or +49 151 51557123

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2. Label Elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3. Other hazards

none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Synonyms: DMSO
Chemical characterization: Natural product
Molecular formula: C₂H₆OS
CAS-No.: 67-68-5
EC-No.: 200-664-3

No components need to be disclosed according to the applicable regulations.

4. FIRST AID MEASURES

4.1. Description of first aid measures

If inhaled

If breathed in, move person into fresh air. If breathing becomes difficult, call a physician. If not breathing, give artificial respiration.

In case of skin contact

In case of contact, immediately wash skin with soap and copious amounts of water.

In case of eye contact

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician if symptoms persist.

If swallowed

If swallowed, wash out mouth with water provided person is conscious. Call a physician if symptoms persist.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

No information available.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Carbon oxides

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas.

Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations.

Vapours can accumulate in low areas.

6.2. Environmental precautions

Do not let product enter drains

6.3. Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Normal measures for preventive fire protection.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Store under inert gas. hygroscopic

Recommended storage temperature: RT

7.3. Specific end use(s)

No further information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with workplace control parameters: not required

8.2. Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Use impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance Form:	liquid, clear
Odour	no data available
Odour Threshold	no data available
pH	no data available
Melting point/freezing point	16 °C - 19 °C
Initial boiling point and boiling range	189 °C
Flammability	no data available
Upper/lower flammability or explosive limits	upper explosion limit: 42 % (V)

Flashpoint	lower explosion limit: 3.5 % (V) 87 °C – closed up
Evaporation rate	no data available
Vapour pressure	0.55 hPa at 20 °C
Vapour density	2,7 – (Air = 1.0)
Relative density	1.1 g/mL
Water solubility	completely miscible
Partition coefficient: n-octanol/water	log Pow: -2.03
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available
9.2. Other Information	
No data available	

10. STABILITY AND REACTIVITY

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under recommended storage conditions

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

Acid chlorides, Phosphorus halides, Strong acids, Strong oxidizing agents, Strong reducing agents

10.6. Hazardous decomposition products

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

11.1. Information of toxicological effects

Acute toxicity

LD50 Oral - rat - 14.500 mg/kg
LC50 Inhalation - rat - 4 h - 40250 ppm
LD50 ipr mouse – 2.500 mg/kg

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Inhalation:

Material may be irritating to mucous membranes and upper respiratory tract.
May be harmful if inhaled.

Ingestion:

May be harmful if swallowed.

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

Carcinogenicity - rat - Oral

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Skin and Appendages: Other: Tumors.

Carcinogenicity - mouse - Oral

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Leukaemia Skin and Appendages: Other: Tumors.

IARC:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Reproductive toxicity - rat - Intraperitoneal

Effects on Fertility: Abortion.

Reproductive toxicity - rat - Intraperitoneal

Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

Reproductive toxicity - rat - Subcutaneous

Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Fertility: Litter size (e.g., # fetuses per litter; measured before birth).

Reproductive toxicity - mouse - Oral

Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system.

No data available

Developmental Toxicity - mouse - Intraperitoneal

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system.

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

RTECS: PV6210000

Effects due to ingestion may include:, Nausea, Fatigue, Headache

Eyes - Eye disease - Based on Human Evidence

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Toxicity to fish

LC50 - Pimephales promelas (fathead minnow) - 34.000 mg/l - 96 h

LC50 - Oncorhynchus mykiss (rainbow trout) - 35.000 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia pulex (Water flea) - 27.500 mg/l

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6. Endocrine disrupting properties

No data available

